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REMARKS/ARGUMENTS

I. STATUS OF CLAIMS

Claims 1-26 remain in this application. Claims 1, 3, 5, 9-11, 13, 18, 19, and 26 have been amended. Claim 25 has been canceled. It should be noted that Applicant has elected to amend said Claims solely for the purpose of expediting the patent application process in a manner consistent with the PTO's Patent Business Goals, 65 Fed. Reg. 54603 (9/8/00). In making this amendment, Applicant has not and does not in any way narrow the scope of protection to which Applicant considers the invention herein to be entitled and does not concede, in any way, that the subject matter of such Claims was in fact taught or disclosed by the cited prior art. Rather, Applicant reserves Applicant's right to pursue such protection at a later point in time and merely seeks to pursue protection for the subject matter presented in this submission.

II. CLAIM REJECTIONS - 35 U.S.C. § 102

The Office Action rejected Claim 25 under 35 U.S.C. § 102(e) as anticipated by Daniel, U.S. Patent No. 6,766,301 B1 (Daniel).

Applicant has canceled Claim 25. Therefore, Applicant respectfully requests that the Examiner withdraw the rejection under 35 U.S.C. § 102(e).

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III. CLAIM REJECTIONS – 35 U.S.C. § 103

The Office Action rejected Claims 1-16 and 18-24 under 35 U.S.C. § 103(a) as being unpatentable over Herz, (No. 2001/0014868) in view of Chen (U. S. Patent No. 5,602,918). The rejection is respectfully traversed.

Claim 10:

Claim 10 has been amended to clarify the invention and appears as follows:

10. A method for generating a coupon authentication number for each receiving device coupled to a coupon distribution system, comprising the steps of:

activating at least one receiving device;

generating a unique coupon authentication number for each said receiving device, wherein said coupon authentication number is randomly generated and can be of any length of bits long;

storing said coupon authentication number in a coupon authentication number database;

communicating said coupon authentication number to a key server;

encrypting said coupon authentication number at said key server; and

sending said encrypted coupon authentication number from said key server to a receiving device which saves said encrypted coupon authentication number;

wherein the receiving device uses said encrypted coupon authentication number to create a coupon ID number from an offer ID number.

In particular, the Office Action appears to have missed the significance of several claimed elements in Claim 10. Claim 10 identifies three elements:

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- 1) a coupon authentication number;
- 2) a coupon ID number; and
- 3) an offer ID number.

The Office Action does not recognize the relationship between these three elements. First, the coupon authentication number is unique to each receiving device. The coupon authentication number is used to generate the coupon ID number in a receiving device for a particular offer ID number such that:

$\text{func}(\text{coupon authentication number}, \text{offer ID number}) = \text{coupon ID number}$

The Office Action states that Herz teaches:

“generating a unique coupon authentication number for each said receiving device, wherein said coupon authentication number is randomly generated and can be of any length of bits long (Herz: see for example, Paragraph [0282]);”

However, Herz in Paragraph [0282] states:

“[0282] 1. a unique identifier for the coupon (to prevent reuse)”

This is not what is claimed in Claim 10. Herz teaches a **unique identifier for the coupon** while Claim 10 describes that a unique coupon authentication number is generated for each said receiving device. Claim 10 further describes that the unique coupon authentication number for each said receiving device is used to create a coupon ID number from an offer ID number. The Office Action has not shown that Herz teaches generating a unique coupon authentication number for each said receiving device.

Therefore, Herz in view of Chen does not teach or disclose the invention as claimed.

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Claim 10 is in allowable condition. Claims 11 and 12 are dependent upon independent Claim 10. Therefore, Applicant respectfully requests that the Examiner withdraw the rejection under 35 U.S.C. §103(a).

Claims 1, 13, and 18:

Claims 1, 13, and 18 have been amended to clarify the invention and appear as follows:

1. A process for generation, delivery, and validation of electronic coupons via a telecommunication system, comprising the sub-processes of:
 - generating a unique coupon authentication number for each of a plurality of receiving devices;
 - delivering an electronic offer ID to one or more receiving devices;
 - wherein a receiving device generates a coupon ID number using the receiving device's coupon authentication number and the offer ID;
 - validating said coupon ID number when a user redeems said coupon ID number using the receiving device's coupon authentication number;
 - wherein said telecommunication system includes a service center, a plurality of receiving devices, a display device coupled to each receiving device, a communication channel connecting said service center and each receiving device;
 - wherein said service center comprises an activation database, an authentication number database and a key server;
 - wherein said receiving device comprises a persistent storage device which stores one or more public keys assigned to said receiving device, and a

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crypto-chip which stores one or more private keys assigned to said receiving device.

13. A method for delivering cryptographic coupons to one or more receiving devices coupled to a coupon distribution system, comprising the steps of:

receiving an order from a client to issue an electronic coupon, which is an offer to sell a specific product or service;

confirming an offer ID number for said electronic coupon;

sending said offer ID number with coupon information to a receiving device;

distributing a coupon authentication number to each of said one or more receiving devices that is unique to each receiving device;

performing a hash operation by a crypto-chip at said receiving device on said offer ID number using an encrypted coupon authentication number if a user decides to accept said offer;

displaying the first N digits of the hashed result as a coupon ID number, with which, together with said offer ID number and said receiving device's serial number, the user may redeem said coupon; and

wherein said coupon ID number may be displayed to a user including detailed instructions about how to redeem said coupon.

18. A system for coupon encryption, distribution, and validation, comprising:

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a plurality of coupons, each of said coupons is designated a unique offer ID number;

an information service center which comprises an activation database, a coupon authentication number database, and a key server;

a plurality of service receiving devices, each of which is coupled to a display device;

a channel through which said information service center and a service receiving device communicate;

wherein said information service center generates a unique coupon authentication number for each said service receiving device, wherein said coupon authentication number is stored in said coupon authentication number database and is communicated to said key server;

wherein said key server encrypts said coupon authentication number using an encryption algorithm and sends the encrypted coupon authentication number to said service receiving device;

wherein said service receiving device comprises a crypto-chip and a hard drive;

wherein said service receiving device decrypts the encrypted coupon authentication number;

wherein said crypto-chip performs a hash operation on said offer ID number using said coupon authentication number and takes the first or last N digits of the hashed result as a coupon ID number for said coupon; and

wherein said coupon may be validated by said key server, which uses said service receiving device's serial number to look up the coupon

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authentication number stored in said coupon authentication number database and performs a hash operation on said offer ID number using said coupon authentication number and compares a base number taken from the first or last N digits of the hashed result with said coupon ID number submitted, and validates said coupon if said base number and said coupon number match.

With respect to Claim 18, as stated above, the Office Action appears to have missed the significance of several claimed elements in Claim 18. Claim 18 identifies three elements:

- 1) a coupon authentication number;
- 2) a coupon ID number; and
- 3) an offer ID number.

The Office Action does not recognize the relationship between these three elements. First, the coupon authentication number is unique to each receiving device. The coupon authentication number is used to generate the coupon ID number in a receiving device for a particular offer ID number such that:

$\text{func}(\text{coupon authentication number}, \text{offer ID number}) = \text{coupon ID number}$

The Office Action states that Herz teaches:

“wherein said information center generates a unique coupon authentication number for each said receiving device, wherein said coupon authentication number is randomly generated and can be of any length of bits long (Herz: see for example, Paragraph [0282]);”

However, Herz in Paragraph [0282] states:

“[0282] 1. a unique identifier for the coupon (to prevent reuse)”

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This is not what is claimed in Claim 18. Herz teaches a **unique identifier for the coupon** while Claim 18 describes that a unique coupon authentication number is generated for each said receiving device. Claim 18 further describes wherein said crypto-chip performs a hash operation on said offer ID number using said coupon authentication number and takes the first or last N digits of the hashed result as a coupon ID number for said coupon. The Office Action has not shown that Herz teaches generating a unique coupon authentication number for each said receiving device.

The Office Action additionally confuses the three elements, by stating that Herz teaches:

“wherein said crypto-chip performs a hash operation on said offer ID number using said coupon authentication number and takes the first or last N digits of the hashed result as a coupon ID number for said coupon (Herz: see for example, Paragraph [0282] – [0287] and [0038]: Herz teaches using hash function to sign the coupon, which indeed includes (a) said offer ID number and (b) the coupon authentication number. Since the offer ID number is the product related information, which is the public information, the hash key must use the coupon authentication number as the private secret information);”

However, the Office Action has confused the relationship between the claimed elements. The coupon authentication number is kept on the service receiving device and in the coupon authentication number database that the key server accesses.

Further, the Office Action is nonsensical in its statement that “Since the offer ID number is the product related information, which is the public information, the hash key must use the coupon authentication number as the **private secret information**” which directly conflicts with the Office Action’s statement that “Herz teaches using hash

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function to sign the coupon, **which indeed includes (a) said offer ID number and (b) the coupon authentication number**". It is unclear how the Office Action's coupon authentication number can be private secret information and yet be included in Herz's coupon. There can be no security if the hash key uses the Office Action's coupon authentication number to sign the coupon and Herz's coupon information includes the Office Action's coupon authentication number which is transmitted in the clear to the customer (see Paragraphs [0827] and [0288]). Therefore, Herz does not teach or disclose wherein said crypto-chip performs a hash operation on said offer ID number using said coupon authentication number and takes the first or last N digits of the hashed result as a coupon ID number for said coupon as claimed in Claim 18. This additionally supports that Herz does not teach or disclose generating a unique coupon authentication number for each said service receiving device as claimed in Claim 18.

The Office Action further confuses the three elements and a fourth, the service receiving device's serial number. The key server uses the service receiving device's serial number to look up the coupon authentication number stored in said coupon authentication number database as claimed in Claim 18. It is unclear how the Office Action resolves that Claim 18 states that:

"wherein said coupon may be validated by said key server, which uses said service receiving device's serial number to look up the coupon authentication number stored in said coupon authentication number database and performs a hash operation on said offer ID number using said coupon authentication number and compares a base number taken from the first or last N digits of the hashed result with said coupon ID number submitted, and validates said coupon if said base number and said coupon number match."

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This is in light of the fact that the Office Action specifically states that Herz does not disclose a key server. Further, Herz does not teach or disclose the relationship as claimed in Claim 18 between the coupon authentication number database, the service receiving device's serial number, and the coupon authentication number.

Therefore, Herz in view of Chen does not teach or disclose the invention as claimed.

Claim 18 is in allowable condition. Claims 1 and 13 are similarly allowable. Claims 2-9, and 14-16, and 19-24 are dependent upon independent Claims 1, 13, and 18, respectively. Therefore, Applicant respectfully requests that the Examiner withdraw the rejection under 35 U.S.C. §103(a).

IV. CLAIM REJECTIONS – 35 U.S.C. § 103

The Office Action rejected Claim 17 under 35 U.S.C. § 103(a) as being unpatentable over Herz, No. 2001/0014868, in view of Chen, U.S. Patent No. 5,602,918, and in view of Mankoff, U.S. Patent No. 6,385,591B1. The rejection is respectfully traversed.

As described above, the Office Action appears to have missed the significance of several claimed elements in Claim 17. Herz does not teach or disclose what the Office Action states.

Claim 17 is in allowable condition in similar manner as Claims 1, 13, and 18 as stated above. Therefore, Applicant respectfully requests that the Examiner withdraw the rejection under 35 U.S.C. §103(a).

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V. CLAIM REJECTIONS – 35 U.S.C. § 103

The Office Action rejected Claim 26 under 35 U.S.C. § 103(a) as being unpatentable over Daniel, U.S. Patent No. 6,766,301 B1 (Daniel) in view of Mankoff, U.S. Patent No. 6,385,591 B1. The rejection is respectfully traversed.

Claim 26 has been amended to clarify the invention and appears as follows:

26. (Currently Amended) A method for remedying a security leak of an authentication number database, comprising the steps of:

fixing said security leak;

generating a new random coupon authentication number for each receiving device that is unique for each receiving device;

wherein said coupon authentication number is used to generate unique coupon ID numbers on each receiving device; and

distributing said coupon authentication number to each receiving device via a key server.

In particular, Daniel does not teach or disclose a system that generates a new random coupon authentication number for each receiving device that is unique for each receiving device and wherein said coupon authentication number is used to generate unique coupon ID numbers on each receiving device as claimed in Claim 26. Daniel does not mention such a system.

Further, Mankoff does not teach or disclose a system wherein said coupon authentication number is used to generate unique coupon ID numbers on each receiving device as claimed in Claim 26.

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Therefore, Daniel in view of Mankoff does not teach or disclose the invention as claimed.

Claim 26 is in allowable condition. Therefore, Applicant respectfully requests that the Examiner withdraw the rejection under 35 U.S.C. §103(a).

VI. CLAIM REJECTIONS – 35 U.S.C. § 103

The Office Action rejected Claim 10 under 35 U.S.C. § 103(a) as being unpatentable over Mankoff, U.S. Patent No. 6,385,591 B1 (Mankoff) in view of Chen, U.S. Patent No. 5,602,918. The rejection is respectfully traversed.

Claim 10 has been amended to clarify the invention and appears as follows:

10. A method for generating a coupon authentication number for each receiving device coupled to a coupon distribution system, comprising the steps of:

activating at least one receiving device;

generating a unique coupon authentication number for each said receiving device, wherein said coupon authentication number is randomly generated and can be of any length of bits long;

storing said coupon authentication number in a coupon authentication number database;

communicating said coupon authentication number to a key server;

encrypting said coupon authentication number at said key server; and

sending said encrypted coupon authentication number from said key server to a receiving device which saves said encrypted coupon authentication number;

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wherein the receiving device uses said encrypted coupon authentication number to create a coupon ID number from an offer ID number.

Neither Mankoff nor Chen teach or disclose a system wherein the receiving device uses said encrypted coupon authentication number to create a coupon ID number from an offer ID number as claimed in Claim 10.

Therefore, Mankoff in view of Chen does not teach or disclose the invention as claimed.

Claim 10 is in allowable condition. Claims 11 and 12 are dependent upon independent Claim 10. Therefore, Applicant respectfully requests that the Examiner withdraw the rejection under 35 U.S.C. §103(a).

VII. MISCELLANEOUS

Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

The Applicants believe that all issues raised in the Office Action have been addressed and that allowance of the pending claims is appropriate. Entry of the amendments herein and further examination on the merits are respectfully requested.


The Examiner is invited to telephone the undersigned at (408) 414-1080 ext. 214 to discuss any issue that may advance prosecution.

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No fee is believed to be due specifically in connection with this Reply. To the extent necessary, Applicants petition for an extension of time under 37 C.F.R. § 1.136. The Commissioner is authorized to charge any fee that may be due in connection with this Reply to our Deposit Account No. 50-1302.

Respectfully submitted,
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on July 11, 2005